

Teacher professional learning communities: Going beyond contrived collegiality toward challenging debate and collegial learning and professional growth

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Professional learning community (PLC) is a current ‘buzz’ term in business and educational contexts, seemingly referring to anything from decision making committees to regular meeting groups or collegial learning teams. This paper explores the concept of a PLC within three significantly innovative schools, based on an examination of the relevant literature and also focusing on surveys and interviews. Findings indicate that, while there is broad consistency across the literature and within the innovative school cases in terms of core PLC elements of shared vision and values, collegiality, joint practical activities and student learning data, teacher inquiry and leadership support and opportunities, there are some pivotal PLC characteristics which heighten the professional learning impact. In this paper, using vignettes from the case study schools, these pivotal characteristics are related to developmental phases of PLC establishment. This offers valuable insights about nurturing more learning-focused PLCs, with significant benefits for teacher professional growth and ultimately for

student learning.

Keywords: Professional Learning Community, PLC, teacher professional learning

Introduction

Social, economic and political pressures are evident at a global level regarding the key role of education in ensuring children and adults have the skills and knowledge for living and working in a rapidly changing world. High-level educational outcomes for students are being increasingly linked with quality teachers and there is a need for ongoing professional learning to ensure that teaching practices are updated within an era of considerable educational reform. Significant school innovations include transformations in the role of learners and of teachers, organizational and pedagogical restructuring, and utilizing resources differently such as in terms of technology and learning spaces. There are generally also significant changes in curriculum content in innovative contexts, including more interdisciplinary approaches and also possibly including a focus on competencies and values (OECD, 2011). The establishment of professional learning communities (PLCs) has been indicated as effective in building skills and knowledge for working in innovative contexts across teacher and leader teams and networks, and also within online contexts and school and pre-service and postgraduate university study programs (Meiers & Buckley, 2009).

The research literature indicates considerable consistency in the key characteristics of teacher PLCs. Participants working together regularly over an extended timeline, shared values and vision, practical activities focused on student learning, taking an inquiry stance, being reflective and collaborating and sharing experiences, are characteristics which are consistently highlighted. Leadership support and opportunity for distributed leadership within teams are additional characteristics of many PLC models (Bolam, McMahon, Stoll, Thomas, Wallace & Greenwood; 2005; Johnson, 2009; Coburg & Russell, 2008; Scott, Clarkson & McDonough, 2011; Mockler & Sachs, 2002; Owen, 2005).

Despite this apparent agreement and the proliferation of education

situations which have established PLCs, closer examination of the characteristics highlighted by various researchers indicates that there are varying degrees of emphases. Understanding this may help to account for the differential degrees of PLC impact on student and teacher learning (Vescio, Ross & Adams, 2008). There are also frameworks which consider the developmental stages of PLCs, thereby enhancing understanding and providing insights for leaders and PLC team members (Mulford, 1998; DuFour, 2004).

This paper examines the PLC models and developmental stages in more detail within the context of three highly innovative schools.

Professional learning community background and theoretical models

Greater understanding about PLCs may be contextualized within situated learning models and the communities of practice literature (Barab & Duffy, 2000; Lave, 1993; Wenger, 1998). In education, Barab & Duffy's (2000) situated learning model or situativity theory is relevant because 'colleagues work together on a real problem which involves team members in supporting each other...scaffolding and breaking a task into manageable sections when issues are complex. [It involves] coaching, modeling, collecting data and examining student work... highlighting cognition as distributed over people and artefacts' (Owen, 2004: 5). Barab and Duffy's situativity theory or situated learning model highlights psychological and anthropological approaches. The psychological perspective is about cognition and meaning occurring through situated activities in practice fields resembling real life situations while the anthropological view is focused on learning within actual communities of practice. 'Meaning, solutions and interactions gained ensure that the individual's entity is inseparable from the community and community members take responsibility for the learning of others in the group' (Owen, 2004: 5).

The broadly-based community of practice literature is consistent with Barab and Duffy's situativity model, particularly within the anthropological focus. Authentic learner activities for the individual are located in community such that 'developing an identity as a member of a community and becoming knowledgably skillful are part of the same process, with the former motivating, shaping and giving meaning to the

latter' (Lave, 1993: 65)

Lave (1993) and Wenger's (1998) work regarding communities of practice, while not specifically focused on teachers, has particular relevance to PLCs established in education settings. Wenger (1998) acknowledges the range of communities in which individuals participate on a daily basis but he defines communities of practice more specifically. He uses three dimensions of *purpose* (joint enterprise and values renegotiated by members over time); *functions* (mutual engagement binding long term members and newcomers into a social entity and commitment to shared ideas); and *capability* (shared repertoire of communal resources including artefacts produced over time). Knowledge is created, shared, organised, revised and passed on within and among these communities. In a deep sense, it is by these communities that knowledge is 'owned' in practice' (Wenger, 1998).

While Wenger and Snyder (2000) highlight that Communities of Practice arise naturally and are essentially self-sustaining in nature, Wenger (1998) also indicates that there are considerable processes involved in leadership nurturing of the community. Support processes include creating time for member activities and nurturing a collegial and learning-focused culture. Other supports include provision of resources including involving outside experts and funded conferences and study programs to continue to bring in new ideas and guard against insularity.

Another significant aspect relevant to the anthropological perspective is the concept of reproduction of the community as new members work alongside competent others in the community of practitioners. Lave (1997) indicates that newcomers within these communities begin as apprentices on the periphery and gradually move towards the centre of the community as they acquire the beliefs of others. This results in individual values and practices becoming merged with those of the community. However there is more to the process than newcomers being continuously inducted into the existing group over an extended timeline because they also bring in new ideas. This helps to ensure that regeneration and ongoing learning is occurring.

Teacher PLC frameworks background

Teacher professional learning community models are closely aligned

to the community of practice literature involving characteristics of collegiality, practical tasks with a focus on student learning, and being research-oriented for the purposes of improving practice. These aspects are reflected in the following definitions of professional learning communities:

...small groups of teachers who come together as a team to help one another improve student learning. The team members share and reflect on their practice and personal experiences, observe each other's practices, and study and apply research and best practices together (Education Northwest, 2012: 3, citing Sather & Barton, 2006).

...a group of people who take an active reflective, collaborative, learning-oriented and growth-promoting approach towards the mysteries, problems and perplexities of teaching and learning (Edwards, 2012: 26, citing Mitchell and Sackney, 2000).

Scott, McDonough Clarkson's (2011) literature review of key elements regarding teacher PLCs generally highlights consistency of characteristics. Their work focuses on four researchers (Bolam et al., 2005; Johnson, 2009; Darling-Hammond & Richardson, 2009; Coburg & Russell, 2008). All of these researchers characterise teacher PLCs as explicitly or implicitly being about shared values and vision, a focus on student learning, taking an inquiry stance, making teaching more public, sharing experiences and expertise, willingness to experiment with alternative strategies, and engaging in reflective dialogue.

Having collective responsibility for pupil learning, attending to school teaching-learning challenges, and having inclusive membership and mutual respect and support for teachers were other PLC characteristics identified by most of these researchers. However, goal setting and designing action plans, having formal and widespread leadership, and engaging in-depth interaction about how students learn (regarding content, pedagogical principles, curriculum content) were PLC characteristics noted variously by only one of the four researcher teams.

Consistent with community of practice features outlined previously, the leadership aspect is of particular interest, especially for school-

based PLCs. This aspect incorporates support from leadership for PLCs, the notion of distributed leadership and the role of team members in building their own leadership skills and those of others in their group. Kruse, Louis and Bryk's (1995) work generally aligns with previously-outlined teacher PLC characteristics in terms of reflective dialogue, trust and respect, shared norms and values, and collaboration and collective focus on student learning. However their work also specifically highlights many aspects associated with leadership support such as 'supportive leadership', 'deprivatisation of practice' (eg observing teaching and formal methods to share expertise and support marginal teachers), 'socialisation and support for new teachers', 'time to meet and talk', 'teacher empowerment' and 'establishing communication structures'. Similarly, DuFour's (2004) model is consistent with the previously-outlined PLC characteristics but particularly emphasises leadership support and teacher empowerment. The model has a significant focus on goal setting, continuous improvement and ensuring that students learn, also data and results.

Beyond student learning, teacher professional learning through collaboration is a key characteristic in each researcher's list of characteristics, although with details being made more explicit in some models. For example, DuFour's (2004) model additionally emphasises action research and also collective professional learning as a key characteristic of the PLC, including provision of some very specific details within a rubric. Other researchers (Hargreaves, 1992; Head, 2003; Grossman, Wineburg and Woolworth, 2000, 2001; Jarzabkowski, 2001) also provide a similar focus about supporting professional learning through collaboration. They caution that collaboration based on contrived collegiality, conviviality and congeniality may be an impediment to professional learning. There are challenges for working in a professional learning community which deprivatises teaching and is characterised by common goals and builds interdependence. The key is building a culture which goes beyond the work group and is open to new ideas and guarding against insularity. Continuous professional learning and debate is essential (Stoll et al., 2006; Fullan, 1993). Grossman et al.'s (2000, 2001) work documenting the formation of an interdisciplinary secondary teacher PLC indicates key aspects of processes in collaborative professional learning. Challenge and debate regarding various educational perspectives are an important part of the

learning process.

Indeed, several researchers highlight that PLCs do not just happen because teachers are working together and there are actually developmental phases. Mulford (1998) summarises the predictable stages of group development as ‘forming’ (polite), ‘storming’ (conflict over power), ‘norming’ (social cohesion and willingness to share), ‘performing’ (increase in task orientation and feedback), ‘transforming’ (group learns from feedback and may change tasks or ways of doing them), ‘dorming’ (resting to prevent burnout) and ‘mourning’ (group dissolution). Mulford (1998) also emphasizes the important role of the school leader to ensure that PLCs go beyond the ‘forming’, ‘storming’ and ‘norming’ phases and really focus on ‘performing’ and ‘transforming’ stages. Similarly, Du Four’s (2004) work has ‘pre-initiation’, ‘initiation’, ‘developing’ and ‘sustaining’ stages, with a significant leadership aspect included. For example, for the ‘action research’ PLC aspect (a key focus for teacher inquiry and professional learning), the pre-initiation stage is about individual teacher classroom experimentation without training, support structures and evaluation processes. However, at the sustaining level, ‘action research’ is characterized as involving ‘topics...from the shared vision and goals of the school. Staff members regard action research as an important component of their professional responsibilities. There are frequent discussions regarding the implications of findings as teachers attempt to learn from the research of their colleagues’ (DuFour, 2008: 2).

While some research into teacher PLCs and developmental stages has occurred, this has not been conducted in significantly innovative schools. An overall research project was established to examine teacher professional learning and PLCs in some innovative schools, including specific examples of teacher learning and evidence of impacts on student learning. The overall research question was: In what ways are characteristics of PLCs evident in the professional learning processes occurring in significantly innovative case study school contexts and what are the learning impacts for those involved? The current paper is focused on highlighting some key components for professional learning within PLCs and developmental stages.

Research methods

The current research involved a case study approach to explore the experiences of various teachers and teams involved in PLCs within significantly innovative schools in one Australian state. A purposive sample was used with three schools, which are part of an international project (OECD, 2012). One case study school was a specialist senior secondary context catering for 15 to 19 year olds. There was also a reception to year 7 school involving those aged about 5 to 13 years and a secondary school where the innovation at that time included students aged 12 to 15 years of age. The case study approach was used to enable a detailed exploration of teacher professional learning experiences within their PLCs, thereby enabling the researcher 'to go deeper into the motivations for respondents and their reasons for responding as they do' (Miles and Huberman, 1994: 27).

School documentation, interviews and focus groups were the research methods used. Documentation included examining submissions made by each of the schools to an OECD Innovative Learning Environment project. Additionally, school documentation included further examining the results of a PLC survey of 58 staff across the three innovative schools. The survey involved primary and secondary teachers mostly having over 20 years of experience in general or specialist subject areas and frequently working in interdisciplinary teams within the school's innovative context. The staff survey involved a five point Likert scale in relation to commonly-accepted PLC characteristics such as shared vision, collaboration, data focus, and leadership (based on Stoll, Bolam, McMahon, Wallace & Thomas, 2006). The survey included specific aspects such as 'Reflective Dialogue: Faculty/staff members talk with each other about their situations and the specific challenges they face' and 'Collective Focus on Student Learning: Teachers assume that all students can learn at reasonably high levels and that teachers can help them'. Response choices for the fifteen items were 'not at all', 'somewhat', '50%', 'To a large degree', and 'To a great extent'. The schools had previously collated the results and this data was part of their documentation which was further analysed by the researcher using manual processes.

Ten semi-structured interviews and two focus groups were conducted,

with one focus group of three people occurring at one of the schools involved and one focus group of two people at another school. Volunteer staff and each of the school leaders were interviewed. A total of 15 teachers and leaders from across the three schools were involved. Interview/focus group questions related to the changing role of the teacher, models of school-based professional learning and the importance of professional learning and professional learning communities in supporting innovation. While specific questions varied according to the interview process, indicative question areas included: Can you describe models of school based professional learning communities which are occurring? In what ways do these professional learning community opportunities support professional learning? What are the advantages? What are the challenges of school based learning communities? Can you give a specific example of your own professional learning from others in the PLC, changes made in your teaching practices and any specific evidence of impacts on students and their learning?

The interviews included a discussion of the DuFour (2008) professional learning community developmental stages for eleven PLC aspects such as *Overall PLC Development, Mission, Shared Vision, Shared Values, Goals, Collaborative Culture* (teachers working together), *Collaborative Culture* (administrator/teacher relations), *Parent Partnerships, Action Research, Continual Improvement, and Focus on Results*. The rubric stages for which descriptors were provided were ‘pre-initiation’, ‘initiation’, ‘developing’ and ‘sustaining’. For example, for *Overall PLC Development*, at the ‘pre-initiation stage’ the descriptor was ‘The school has not yet begun to address a particular principle of a PLC’ while for the Initiation Stage, the descriptor indicated there had been ‘an effort’ but no impact as a ‘critical mass’. However for ‘Developing Stage’, the descriptors indicated there was a critical mass endorsement of the principle and ‘members are beginning to modify their thinking and practice..Structural Changes are being made to align with the principle’. For the ‘Sustaining Stage’, the descriptor indicated that ‘the principle is deeply embedded in the school’s culture. It represents a driving force in the daily work of the school. It is so internalised that it can survive changes in key personnel’.

Interviews were digitally recorded with manual notes also taken.

Transcriptions were then provided to the interviewees for amendment/additional information. Manual analysis of key themes occurred through in-depth reading, segmenting of each transcript and then clustering, ‘memoing’ and coding the emergent themes and sub-themes (Punch, 2009: 174).

This paper outlines the findings within three vignettes which are representative of the findings in regard to the three Australian case study schools included in the research. Pseudonyms are used for the schools involved and where individual names were cited in the interviews, that name is replaced by [...] in the texts cited in this paper.

Findings

Southern Hills Secondary

....a really rich environment of discussion with ideas coming from all sorts of discipline perspectives because we've all got different backgrounds, different training and bringing that together...People are talking about their research or might be just talking about their own philosophy of education or just their own experiences in the classroom, things that worked and didn't work or things they'd like to try out...a genuine interaction, cross-fertilisation and a genuine professional respect..... Discussions we have here are much deeper. They're ongoing because time is provided for that (Teacher interview 7).

Southern Hills Secondary is a purpose-built, technology-rich, 350 student specialist senior high school established within the past decade, with innovation being key to its educational approach since its establishment ten years ago. A topics-focused interdisciplinary curriculum including big picture ‘fertile questions’ is used and there are individual student learning plans and multi -year level daily tutor groups. Professional learning is a high priority and includes teachers working in teams and co-planning, as well as funded external conference attendance, overseas/interstate site visits and action research study teams. Workday-scheduled interdisciplinary team meetings for co-

planning and team teaching and assessing occur on a tri-weekly basis to ensure new ideas are constantly introduced and discussed. Time to meet with interested staff and templates for reporting are provided following conference attendance and visits to other sites.

Many of the action research study groups and interdisciplinary teams seem to be operating in a manner that reflects the characteristics of PLCs including shared vision, collaboration, joint involvement in practical tasks and student learning data, leadership support and distributed leadership, and also inquiry and responsibility for collegial learning. For example, the survey indicated 80-90% respondents (to a large degree, great extent) having shared values about all students being able to learn, collaboration and collective engagement focused on data and student learning, and leaders being supportive. Similarly, for the PLC characteristic of *collective engagement in practical tasks focused on data and student learning*, (including survey aspects of interdependent teaching, collaboration and producing materials and collective focus on student learning), 80-96% highly positive ('to a large degree', 'to a great extent') responses were received. Regarding *leadership support and distributed leadership encouragement*, for specific survey aspects about socialising newcomers, supportive leadership, time to meet, physical proximity and teacher empowerment, all were again highly positive ('to a large degree', 'to a great extent') for over 70% of respondents for each measure.

Of particular interest for this current paper about teacher professional learning are the PLC characteristics related to collaboration and teacher inquiry and learning. Highly positive survey responses ('to a large degree', 'to a great extent') were received for all aspects, including for deprivatisation of practice (80%), trust and respect (69%) and collective focus on student learning (80%). For *teacher enquiry* involving taking risks and openness to improvement, there was a 97% highly positive ('to a large degree', 'to a great extent') survey response.

Regarding professional learning involving *collaboration* and *teacher inquiry*, consistent with Grossman et al. (2000, 2001), teachers and leaders talked about the interdisciplinary nature of the PLC teams and debate requiring teachers to 'really argue the toss about why you do the things you do and how you do them' (Leader interview 1). Regarding

planning and teaching in teams, one teacher indicated that: 'I don't know that I necessarily would have stopped and questioned what I was doing so much...I think I feel more challenged to try different things'. The interviewee indicated that teacher inquiry is supported through structured action research groups for all staff 'to engage in reflection on their practice...gathering some data and doing something with this, observe and then report back...true inquiry (Leader interview 1).

Furthermore, nearly all interviewed teachers indicated in PLC rubrics examined regarding the collaborative culture and action research that their schools and teams were working at the 'sustaining' stage. This related to functioning as teams to 'work collaboratively to identify collective goals, develop strategies to achieve those goals, gather relevant data and learn from each other [using] ...interdependent efforts'. Similarly, they were indicating that they were at the 'sustaining' phase in regard to the PLC rubric item of 'action research as an important component of their professional responsibilities...frequent discussion regarding the implication of findings as teachers attempt to learn from the research of their colleagues'.

As one teacher indicated in regard to the sense of responsibility for the learning of another colleague in her team:

I feel responsible that if I've got a good idea or a quality way of doing something I've got a duty to share that....I've got a responsibility to her and to the students to do the best possible job I can... if that means suggesting something differentpointing out there's a better way to do it...
(Teacher interview 5).

Teacher learning from the PLC is further evidenced by all teachers providing specific examples of changing their teaching practices as a result of learning from others through the PLC processes including through planning together, observing within team teaching situations and co-assessment. Individual interviewees outlined specific changes including one teacher teaching complex scientific principles who was using more role plays and practical activities: 'hands on...they had to make puzzles and join things together' (Teacher interview 5). Another teacher was providing more expansive explanations when introducing new concepts to

groups of students and she had also learned about using more humour in her teaching approach (Teacher interview 7). Evidence of student learning impacts from various pedagogical changes introduced by teachers included class achievement results being about 20% higher which the interviewee indicated was a result of team planning and teaching and the more active learning approaches introduced (Teacher interview 5). Other teachers noted that, following pedagogical changes, there were improvements in attendance and overall student engagement, with students involved in more task-focused discussions in group work and more students seeking additional access to the resources used in lessons (Teacher interviews 4, 5, 7).

Western Flats Primary

....there's professional learning right through the day on a daily basis because of our team teaching scenario, where teachers can bounce ideas off each other and reflect at the end of the day and for following days. So there is that learning from and with one another on that basis' (Leader interview 2).

Western Flats Primary is a 300 student, significantly low socio-economic school using updated classrooms. Significant organisational and pedagogical innovation has occurred in the past seven years. Students learn in reception to year 7 multi-age groups for a significant part of the day, with teachers working in teams and with considerable interest-based topic choices available for students. Part of the day also involves more structured literacy and numeracy times in broader year level groups. Professional learning is a high priority and includes funded external conference attendance and interstate site visits, with reporting back to other staff being a high priority. Action research study teams have recently been introduced accommodating staff interest areas. Classroom-focused teams are meeting regularly as PLCs.

The various teaching and learning teams and also the action research teams have a strong level of commitment to professional learning. Additionally, across the whole school, staff is very committed to and have ownership of the innovative curriculum and pedagogical practices. Staff has been involved in the change process and there is shared leadership. As indicated in relevant documentation about the school

culture:

Shared leadership reinforces the ownership that staff have for the success of the school in achieving improved outcomes for students...Having all staff leading gives an appreciation for the role, which has increased the sense of trust in one another, so initiatives can progress more efficiently and with great support (OECD, 2012, School B, supplementary information: 8).

Many of the action research study and interdisciplinary teams seem to be operating in a manner that reflects the characteristics of PLCs. In the staff survey, regarding the PLC characteristic of *vision and values*, aspects in the survey indicating this include shared norms and values (71% of survey responses: 'to a large degree' or 'to a great extent'); having a shared vision that all students can learn given the support of teachers (70%) and the focus on leaders being supportive and focused on shared purpose, continuous improvement and collaboration (94% to large/great extent). For the PLC characteristic of *collective engagement in practical tasks focused on data and student learning*, (including survey aspects of interdependent teaching, collaboration and producing materials and collective focus on student learning), there were over 70% highly positive responses (to large degree/great extent) . Regarding the PLC characteristic of *leadership support and distributed leadership encouragement*, for specific survey aspects about socialising newcomers, supportive leadership, physical proximity, all were again highly positive (to large degree/great extent) for around 90% of respondents for most measures.

For professional learning and teacher inquiry, while formal action research teams were in the early stages of being introduced, over 90% of teachers gave highly positive responses ('to a large degree', 'to a great extent'). This suggested that openness to improvement through trying new techniques and ideas and making efforts to learn more about their profession was occurring.

Consistent with Grossman et al. (2000, 2001) regarding inquiry and collegial group responsibility for professional learning of others, Western's teachers talked about 'teachers as researchers....the value of really deeply reflecting on elements of your work (Leader interview 2). A teacher similarly indicated the importance of the learning community

representing diverse viewpoints and perspectives and really valuing and debating educational views while also supporting each other to 'build on diversity...You can learn from another field...[being an] advocate for their own particular area but they realise that there's a broader concept here that you fit under and you belong to...The broader pedagogical landscape makes us see that we're connected and we need to support each other' (Teacher interview 9).

PLC collegial learning was also evident in the specific examples given by individual interviewees. For example, one teacher indicated that planning collegially resulted in the introduction of more creative and interest-focused offerings for multi-age student groups in the classroom. Testing of students subsequently indicated struggling readers doubling or trebling their literacy scores, with all students generally making significant gains in literacy (Teacher interview 8).

Teachers highlighted the power of the principal in building a culture and love of learning and providing practical support for teacher learning. As one teacher indicated, the leader's role at Western was about building a commitment to a positive approach to student learning and engagement but also to teacher learning. ...*I love being able to follow my passion and I now want to do some heavy, deep research*' (Teacher interview 8).

The collegial culture of the school nurtured through its leadership team is further indicated in the PLC continuum rubric discussions in which teachers indicated their school being at the sustaining stage in terms of 'Collaborative Culture: Administrator/Teacher Relations'. The rubrics descriptor for this aspect was: 'Staff are fully involved in the decision making processes of the school. Administrators pose questions, delegate authority, create collaborative decision-making processes, and provide staff with the information, training and parameters they need to make good decisions. School improvement is viewed as a collective responsibility'.

Rolling Hills High School

...a team of about seven or eight people [teachers]... with the whole cohort of 120 [students], seeing them [students] through for the three years. So as a result of that we've ended up with some very strong professional

learning teams... So the sort of thing that they're doing, they [teachers] write all the integrated units as a team, so there's input from all of them. They're moderating work now as a team, so that's really helped because we've got, the teams are made up of people with different backgrounds, like some maths teachers, some science teachers, some SOSE teachers, etc, in the team. So when they're marking a piece of work for their 17 kids in their advisory [group], it's great to have some experts in that field working with them (Leader interview 3).

Rolling Hills High has been gradually introducing significantly innovative practices throughout various year levels of the school during the past few years, with about 350 students involved at the time of the research. Significantly innovative practices at Rolling Hills include a shift from the role of teachers as transmitters to being learning facilitators. Teachers also work in interdisciplinary teams focused on interdisciplinary curriculum, and students are involved in personalised learning and following their passions. Professional development is a high priority, with funded external conference attendance, interstate and international visits to other schools and class-focused PLC team meetings being involved.

Collegiality, practical tasks such as co-planning units of interdisciplinary work and deprivatisation including team teaching and observation are involved. Professional learning through the teams is an essential part of the innovation process, with teachers needing to learn new skills to be co-learners and facilitators. Supportive leadership has also been essential, including funding for external conferences and interstate and international visits to other innovative contexts and time for teams to meet and share ideas and planning. As the leader indicated, a key focus has been establishing expectations and support for professional learning conversations to build staff skills in giving explicit student feedback through peer observation and video examples, '*setting up some deliberate structures where people can challenge each other about the level at which they do that work*' (Leader interview 3).

While some of the meeting groups operating in other sections of the school and less involved in significantly innovative educational approaches were still in the early stages of becoming PLCs, these

interdisciplinary innovation teams of about five to seven teachers (focused on co-planning, co-teaching and observing and co-assessing for a particular year level of students) did seem to be operating in a manner that reflects the PLC characteristics at a high level. Regarding the PLC characteristic of *vision and values*, aspects in the survey indicating this include shared norms and values; having a shared vision that all students can learn given the support of teachers and leaders being supportive and focused on shared purpose, continuous improvement and collaboration [over 80% positive responses (50%, to a large degree, to a great extent) for each aspect and about 60% of survey responses indicating to higher level of a large degree/great extent]. For the PLC characteristic of *collective engagement in practical tasks* there were over 67%-91% highly positive responses [specifically including survey aspects of interdependent teaching (91% 'to a large degree'/'to a great extent') and collaboration and producing materials (67% to large degree/great extent)]. Regarding collaboration, while many of those interviewed commented on robust discussions occurring, 'if you really disagree with something you wouldn't hold back, you wouldn't just be polite' (Interview 12), there was also some indication that 'our professional learning communities are working really well but they're still very nice – there's a lot of support but not a lot of challenge' (Leader interview 3).

Consistent with Grossman et al. (2000, 2001) regarding inquiry and collegial group responsibility for professional learning of others, Rolling Hill's teachers talked about learning from each other through observation about how to be a facilitator of student learning. As one teacher indicated: 'I learnt a lot from watching [...] and [...] in the space, working with students and their deep inquiry questioning' (Teacher interview 11).

Regarding professional learning and teacher inquiry, while formal action research teams were in the early stages of discussion, over 75% of teachers gave highly positive responses ('to a large degree'/'to a great extent') which indicated that openness to improvement through trying new techniques and ideas and making efforts to learn more about their profession was occurring. While openness to improvement/experimentation were evident, PLC rubric discussions indicated that more formal action research processes were only at the initiation

stage of only some staff participating in pilot action projects with informal sharing of findings. *Continuous Improvement* systems and *Focus on Results* for students were also indicated in rubric discussions with various interviewees/focus group members from Rolling Hills as being at the initiation stage only. However, similar to Western Flats, the collaboration culture (including teachers working together and administrator/teacher relations) were indicated as being at the sustaining stage so some informal processes for teacher learning seemed to be in place as a baseline for further development.

Additionally, similar to the other case study schools, regarding *Focus on Results* for students, while Rolling Hills PLCs were seemingly in the initiation stage in systematically addressing this, individual teachers in the interviews each provided examples of their own learning from the PLC such as improvements in critical questioning skills and specific examples of individual and group learning by students. These student learning impacts included those related to academic results, social skills development, creativity, problem-solving and student independence in regard to their own learning (Teacher interviews 10-12).

Discussion

Research including document search and interviews/focus groups was conducted in three significantly innovative schools regarding professional learning communities. Generally the case study schools have established teams focused on particular classes of students and two out of three of the schools have also included formal action research teams. These teams operate as professional learning communities to support teachers in building skills and capacities appropriate to a changing role as co-learners and facilitators of student learning. Shared vision, teacher inquiry, and joint involvement in practical tasks are particularly evident in all the case study school PLCs. The leadership aspect is seemingly strong in regard to teacher empowerment, particularly within the teams. There is a high degree of support and funding provided by leadership for professional learning and an expectation that individuals supported for external conferences and visits to other sites, bring their learning back to the school and to their teams. Therefore the case study school PLCs reflected the pivotal characteristics identified by various researchers including shared vision,

strong collaboration, involvement in joint practical activities, supportive and distributed leadership and engagement in inquiry-focused and ongoing professional learning (Bolam, McMahon, Stoll, Thomas, Wallace & Greenwood, 2005; Johnson, 2009; Coburg & Russell, 2008; Scott, Clarkson & McDonough, 2011; Mockler & Sachs, 2002; Owen, 2005).

While all the case study school teams seem to be operating as PLCs to some degree, there are indications that different teams within any one school are at different levels of maturity in terms of operating as PLCs. This finding is consistent with the developmental phases work previously outlined (DuFour, 2004; Mulford, 1998) which identifies early PLC phases involving individuals initially operating separately, towards a process over an extended timeframe of interdependence, shared values and having a sense of responsibility for not only student learning but also collegial learning. For example, considering Grossman et al.'s (2001) specific PLC developmental framework in more detail, this model is focused on collaboration and professional learning which identifies 'beginning', 'evolving' and 'mature' stages. 'Communal responsibility for individual growth' at the beginning stage is outlined as being about believing that the teacher responsibility is to student learning (not colleagues), while at the mature level it is about commitment to the growth of colleagues and the obligations of community membership. Key process aspects identified by Grossman et al. (2001: 62) include 'forming a group identity and norms of interaction', 'navigating fault lines' (including divergent views), 'negotiating the essential tension' (between the student learning and teacher learning focus for the PLC) and 'communal responsibility for individual growth' of colleagues.

However, reflecting Grossman et al. (2000, 2001; also Shen, Zhen & Poppink's 2007 work on pseudo-community), while teachers interviewed were extremely positive about their experiences of most aspects of school-based PLCs, the survey results for the wider range of teachers in some of the case study schools indicated differing stages in relation to being at the highest level for PLC characteristics. Aspects of particular interest relate to deprivatisation of teaching, learning from collegial classroom observations, and moving beyond collegiality and a focus on student learning towards responsibility for collegial learning,

including the value of robust debate about diverse educational views. The case study schools (such as Southern Hills and Western Flat) which were longer established as innovative sites involving PLCs across the whole school, were strongly committed to their school reform vision and to transformative practices. Going beyond pivotal characteristics of PLCs such as collegiality and collaboration, robust debate and a sense of responsibility for the learning of colleagues was particularly evident, not only for some staff but widely across the PLCs and permeating throughout the school culture.

This was especially the situation at Southern Hills within the PLCs focused on particular groups of students (where staff was involved in co-planning, co-teaching and co-assessing) and also among other PLCs established which were focused on formal action research processes. At Southern Hills within the action research teams, there was an expectation that each PLC identified an area for collegial study and researched and reported on this. All staff in the survey and interviewees strongly indicated that in all of these various types of PLCs, robust debate and challenge were expectations within these groups. These processes were indicated as supporting collegial learning, professional growth and rethinking and helping to build the ongoing transformative educational practices. This robust debate and responsibility for the learning of colleagues has been part of the culture established at the school by the leadership team but this is accompanied by distributed leadership and shared responsibility within the PLCs and in other aspects of school life.

A key message arising from the overall research is that time for collegial work, funding and clear expectations are an essential part of the supports and nurturing for these professional growth-oriented PLCs to evolve and operate at the most mature levels.

Summary

While there is further analysis to be undertaken and the small scale nature of the research is acknowledged, I contend that this current work offers valuable insights for leaders in schools and in other education settings in nurturing more learning-focused professional learning communities. Through moving beyond conviviality, through ‘navigating fault lines’ of divergent views and ‘negotiating the essential tensions’,

significant benefits for teacher professional growth will occur.

As teachers examine various sources of data about improvements in student learning, co-assess student work and debate its quality and learn from each other and adopt new innovative practices with ongoing support within their teams, the ultimate beneficiaries are the students. As Grossman et al. (2001: 62) indicate, 'negotiating the essential tension' at the mature level involves recognition that teacher and student learning are intertwined.

Going beyond the professional learning community characteristics generally recognised, this paper provides insights into the pivotal importance of school leadership in the nurturing of teacher PLCs. Through nurturing, financial supports and clear expectations, teacher PLCs can be helped to move beyond contrived collegiality. Engagement in challenging debates within professional learning communities supports staff professional growth, more transformative educational practices and ultimately, student learning.

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